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MCGINN INTELLECTUAL PROPERTY LAW GROUP, PLLC
8321 OLD COURTHOUSE ROAD
SUITE 200
VIENNA, VA 22182-3817

EXAMINER	
BODDIE, WILLIAM	

ART UNIT	PAPER NUMBER
2629	

DATE MAILED: 12/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/664,080	YOSHIHARA, KEIICHIRO	
	Examiner	Art Unit	
	William L. Boddie	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 September 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☒ Claim(s) *10, 14-16* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *03 November 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. In an amendment dated September 20th, 2006 the Applicant amended claims 1, 11, 14 and 20. Claims 1-20 are currently pending.

Response to Arguments

2. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

3. Claim 10 is objected to because of the following informalities: line 6 of the claims states, "said initial value." Currently claim 10 is dependent upon claim 8. However there is never any mention of an initial value in either claim 8 or claim 1 which 8 is dependent from. It appears as though the Applicant intended for claim 10 to instead be dependent upon claim 9. The current discussion of the merits of claim 10 will be examined with this assumption in mind. Appropriate correction is required.

4. Claims 14, 15 and 16 are objected to because of the following informalities: each claim refers to a "said controller." However there is no mention of a controller within the dependence chain of the claims. Appropriate correction is required.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1, 6-8, 11, 14-16 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stephan (US 5,748,185) in view of Debrus (US 5,598,527).

With respect to claim 1, Stephan discloses, an electronic equipment (fig. 13) comprising: a display device configured to display information (laptop screen in fig. 13) and including a display surface (284 in fig. 13); a touch sensor (284, 286, 288 in fig. 13) arranged on at least part of the display surface (clear from fig. 13); a guide portion (tactile cues; col. 12, lines 35-43) configured to protrude from a surface of the touch sensor and to fringe the surface with a line (192, 194 in fig. 7); and

a controller (110 in fig. 3) configured to control an adjustment value (direction of movement and increment of movement) in accordance with a direction of a slide operation along said guide portion from a reference position (fig. 4-5; also note col. 7, lines 38-66; which notes that the coordinates transmitted are relative to a reference position).

Stephan does not expressly disclose that the guide portion is configured by one of a concave portion and a convex portion as a whole, including a vertex configured as a reference position.

Debrus discloses a guide portion (46 in fig. 1) configured to protrude from a surface of a touch sensor (col. 6, lines 8-11) and to fringe the surface with a line configured by one of a concave portion and a convex portion as a whole (clear from fig. 1; also note col. 3, lines 57-63), including a vertex (21-31 in fig.1) configured as a reference position (each switching segment is seen as a reference position).

Debrus and Stephan are analogous art because they are both from the same field of endeavor namely tactile and visual cues to augment touch sensor devices.

At the time of the invention it would have been obvious to one of ordinary skill in the art to replace the textured edges of Stephan with the scalloped edges taught by Debrus.

The motivation for doing so would have been to facilitate the centering of the finger in certain zones (Debrus; col. 3, lines 60-63).

To summarize, Stephan teaches applying tactile cues along the sides of touch *screen* displays. Stephan does not go in-depth into the numerous shapes, sizes and types of tactile cues that can be provided on the sides of the touch screen display. Debrus teaches a scalloped edge that is applied directly adjacent to a display screen on a touch pad, which center the finger in switching zones. It would have been obvious to replace the jagged tactile cues that Stephan discloses with the more structured and superior scalloping of Debrus.

Therefore it would have been obvious to combine Debrus with Stephan for the benefit of centering a user's finger in specific delineations to obtain the invention as specified in claim 1.

With respect to claim 6, Stephan and Debrus disclose, the electronic equipment as claimed in claim 1 (see above).

Stephan further discloses, wherein said touch sensor includes one of a display function (pan and scroll) and a switch function (note the discussion of a menu bar or a tool bar; col. 12, lines 50-53).

With respect to claim 7, Stephan and Debrus disclose, the electronic equipment as claimed in claim 1 (see above).

Stephan further discloses, wherein said touch sensor (288 and 286 in fig. 13) arranged on said at least a part of said display surface (284 in fig. 13) is configured to be proximate to said guide portion (note the relationship between the guide portion, 192, and the touch sensor in fig. 7; as discussed by Stephan this relationship will be carried over to the touchscreen embodiment; col. 12, lines 40-42).

With respect to claim 8, Stephan and Debrus disclose, the electronic equipment as claimed in claim 1 (see above).

Stephan further discloses, comprising: a graphical image (menu bar or a tool bar; col. 12, lines 52-53; also note the graphics in fig. 11) displayed on said display device in said surface of said touch sensor (284 in fig. 13 is a touchscreen having touch capabilities across the entire screen).

Debrus further discloses, wherein a graphical image corresponds to said reference position (note the graphical images located in each finger-well in fig. 1).

With respect to claim 11, Stephan discloses, a method of controlling electronic equipment (figs. 4-5), a touch sensor (284,286,288 in fig. 13) arranged on at least a part of a display surface (laptop screen in fig. 13), a guide portion (192 in fig. 7; col. 12, lines 40-41) configured to protrude from a surface of said touch sensor and to fringe said surface with a line.

Stephan does not expressly disclose that the guide portion is configured by one of a concave portion and a convex portion as a whole, including a vertex configured as a reference position, said method comprising:

guiding a finger along said guide portion to said reference position; and,

receiving a contact input on said surface of said touch sensor adjacent to said reference position based on guiding said finger along said guide portion to said reference position.

Debrus discloses a guide portion (46 in fig. 1) configured to protrude from a surface of a touch sensor (col. 6, lines 8-11) and to fringe the surface with a line configured by one of a concave portion and a convex portion as a whole (clear from fig. 1; also note col. 3, lines 57-63), including a vertex (21-31 in fig.1) configured as a reference position (each switching segment is seen as a reference position), furthermore;

guiding a finger along said guide portion to said reference position (col. 3, lines 60-63); and,

receiving a contact input on said surface of said touch sensor adjacent to said reference position based on guiding said finger along said guide portion to said reference position (col. 6, lines 8-24).

Debrus and Stephan are analogous art because they are both from the same field of endeavor namely tactile and visual cues to augment touch sensor devices.

At the time of the invention it would have been obvious to one of ordinary skill in the art to replace the textured edges of Stephan with the scalloped edges taught by Debrus.

The motivation for doing so would have been to facilitate the centering of the finger in certain zones (Debrus; col. 3, lines 60-63).

Therefore it would have been obvious to combine Debrus with Stephan for the benefit of centering a user's finger in specific delineations to obtain the invention as specified in claim 11.

With respect to claim 14, Stephan and Debrus disclose, the method of controlling electronic equipment as claimed in claim 11 (see above).

Debrus further discloses, receiving sliding contact input on said surface of said touch sensor adjacent to said reference position (col. 6, lines 8-12); and,

inputting said adjustment value to said controller based on receiving said sliding contact input (col. 6, lines 21-24).

With respect to claims 15 and 16, Stephan and Debrus disclose, the method of controlling electronic equipment as claimed in claim 14 (see above).

, wherein receiving sliding contact input on said surface of said touch sensor in a first direction inputs a positive adjustment value to said controller, in a second direction inputs a negative adjustment value (130 in fig. 4, 140, 142 in fig. 5; col. 7, lines 39-59).

With respect to claim 20, claim 20 is seen as containing the same limitations as those recited in claim 1. Therefore claim 20 is rejected on the same merits shown above in the rejection of claim 1.

7. Claims 2-4 and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stephan (US 5,748,185) in view of Debrus (US 5,598,527) and further in view of Serravalle, Jr. (US 4,631,525).

With respect to claim 2, Stephan and Debrus disclose, the electronic equipment in claim 1 (see above).

Stephan further discloses, generating control packets that contain coordinates indicative of relative movement (130 in fig. 4; col. 7, lines 39-59).

Neither Stephan nor Debrus expressly disclose, setting an adjustment value to a predetermined reference value when the reference position is depressed.

Serravalle, Jr. discloses setting an adjustment value to a predetermined reference value when the reference position is depressed (col. 12, lines 46-53).

Serravalle, Jr., Stephan and Debrus are analogous art because they are both from the same field of endeavor namely touch sensor use and implementation.

At the time of the invention it would have been obvious to one of ordinary skill in the art to set the increment and movement variable, of Stephan and Debrus, to a predetermined value when a reference position is pressed, as taught by Serravalle, Jr.

The motivation for doing so would have been to provide an improved slidable adjustment apparatus wherein the relative position of a slidably operable element is represented by a digital position signal which can be used to energize a suitable display (Serravalle, Jr.; col. 2, lines 31-35).

Therefore it would have been obvious to combine Serravalle, Jr. with Stephan and Debrus for the benefit of an improved slidable adjustment apparatus to obtain the invention as specified in claim 2.

With respect to claim 3, Stephan, Debrus and Serravalle, Jr. disclose, the electronic equipment as claimed in claim 2 (see above).

Stephan further discloses, where the controller (110 in fig. 3) changes the adjustment value (direction and increment of movement) from a reference value when the slide operation is performed after a reference position is depressed (130 in fig. 4; 138, 140, 142 in fig. 5; col. 7, lines 39-59).

With respect to claim 4, Stephan and Debrus disclose, the electronic equipment as claimed in claim 1 (see above).

Debrus further discloses, a notification unit configured to provide a notification that the reference position is depressed (Debrus teaches notifying by means of tactile feedback that the user's touch has centered in a reference position; col. 3, lines 57-63)

With respect to claim 17, Stephan and Debrus disclose, the method of controlling electronic equipment as claimed in claim 11 (see above).

Neither Stephan nor Debrus expressly disclose, storing a present value of an adjustment parameter in response to receiving said contact input on said surface of said touch sensor adjacent to said reference position.

Serravalle, Jr., discloses, storing in a register (98 in fig. 4) the present value of an adjustment parameter in response to receiving a contact input on a surface of a touch sensor (40, 60 in fig. 4) adjacent to a reference position (0 label for example).

At the time of the invention it would have been obvious to one of ordinary skill in the art to store the present value of Stephan and Debrus as taught by Serravalle, Jr.

The motivation for doing so would have been to allow the comparison of two different locations of the user's touch (Serravalle, Jr.; col. 11, line 60 – col. 12, line 11).

Therefore it would have been obvious to combine Serravalle, Jr. with Stephan and Debrus for the benefit of touch position comparison to obtain the invention as specified in claim 17.

With respect to claim 18, Stephan, Debrus and Serravalle, Jr. disclose, the method of controlling electronic equipment as claimed in claim 17 (see above).

Stephan further discloses, determining whether said slide operation is performed on said surface of said touch sensor (123, 125, 127 in fig. 4).

With respect to claim 19, Stephan, Debrus and Serravalle, Jr. disclose, the method of controlling electronic equipment as claimed in claim 18 (see above).

Serravalle, Jr. further discloses, adding said adjustment value to said stored present value of an adjustment parameter in response to determining whether said slide operation is performed (col. 12, lines 28-37); and

controlling an output parameter based on adding said adjustment value to said stored present value of an adjustment parameter (col. 2, lines 22-30).

8. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stephan (US 5,748,185) in view of Debrus (US 5,598,527) and further in view of Vanderheiden (US 6,049,328).

With respect to claim 5, Stephan and Debrus disclose, the electronic equipment of claim 1 (see above).

Stephan further discloses, that the functions to which the user can control may be varied based on the particular application program (col. 12, lines 53-55).

However, neither Stephan nor Debrus expressly disclose, controlling an adjustment value (On or Off) of an output level of an acoustic signal (col. 6, lines 29-45).

Vanderheiden discloses, a touch screen device having a concave and convex guide portion (200 in fig. 2), wherein the sliding motion controls an adjustment value (On or Off) of an output level of an acoustic signal (col. 6, lines 29-45).

Vanderheiden, Debrus and Stephan are analogous art because they are all from the same field of endeavor namely tactile and visual cues to augment touch sensor devices.

It would have been obvious to one of ordinary skill in the art to enable the touch screen device of Debrus and Stephan to control an adjustment value of an acoustic signal as taught by Vanderheiden.

The motivation for doing so would have been to make the device more user-friendly for use by people with disabilities, i.e. the visually impaired (col. 1, lines 8-11).

Therefore it would have been obvious to combine Vanderheiden with Debrus and Stephan for the benefit of use by users who are visually impaired to obtain the invention as specified in claim 5.

9. Claims 9-10 and 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stephan (US 5,748,185) in view of Debrus (US 5,598,527) and further in view of Gillespie et al. (US 2005/0024341).

With respect to claims 9 and 12, Stephan and Debrus disclose, the electronic equipment as claimed in claims 8 and 11 (see above).

Stephan further discloses, visual cues (254, 256 in fig. 11) to the user as to the delineations in the regions (col. 12, lines 40-42).

Neither Stephan nor Debrus expressly disclose that the graphical image represents an initial value in a parameter adjustment range.

Gillespie discloses, a graphical image that represents an initial value in a parameter adjustment range (1032, bar in fig. 10b).

Gillespie, Stephan and Debrus are analogous art because they are from the same field of endeavor namely, touch screen functionality and interfaces.

At the time of the invention it would have been obvious to one of ordinary skill in the art to include the movable bar of Gillespie in the scroll bar graphics of Stephan and Debrus.

The motivation for doing so would have been to allow the user to scroll through the text quickly with a conventional scroll device that is well known to users (Gillespie, para. 89).

Therefore it would have been obvious to combine Gillespie with Stephan and Debrus for the benefit of well-known scroll functionality to obtain the invention as specified in claim 9.

With respect to claims 10 and 13, Stephan, Debrus and Gillespie disclose, the electronic equipment as claimed in claims 9 (see objection of claim 10) and 12 (see above).

Stephan further discloses, second and third graphical images (up/down arrows in fig. 11) displayed on said display device in said surface of said touch sensor on either side of said graphical image (outlined box in fig. 11, for example), wherein said second and third graphical images represent one of a value to be increased (up arrow) and a value to be decreased (down arrow) from said initial value in a parameter adjustment range.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William L. Boddie whose telephone number is (571) 272-0666. The examiner can normally be reached on Monday through Friday, 7:30 - 4:30 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amr Awad can be reached on (571) 272-7764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Wlb
12/6/06

AMR A. AWAD
SUPERVISORY PATENT EXAMINER